

Appl. No. 09/874,666
Amdt. Dated 10/04/2004
Reply to Office Action of 07/06/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1.-6. (canceled)
7. (previously presented) A process for underfilling an integrated circuit that is mounted to a substrate, comprising:
dispensing a first material to form an underfill which becomes attached to the integrated circuit and the substrate; and,
dispensing a second material to form a circumferential fillet, the second material being different than the first material and having a lower adhesive property than the first material and becoming attached to the integrated circuit and the substrate.
8. (previously presented) The process as recited in claim 7, wherein the first material flows between the integrated circuit and the substrate.
9. (previously presented) The process as recited in claim 8, wherein the substrate moves within an oven while the first material flows between the integrated circuit and the substrate.
10. (previously presented) The process as recited in claim 7, wherein the second material is dispensed in a pattern which surrounds the first material.
11. (previously presented) A process for underfilling an integrated circuit that is mounted to a substrate comprising:
heating the substrate before a first material is dispensed;
dispensing the first material to form an underfill, the first material becoming attached to the integrated circuit and the substrate; and,

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dispensing a second material to form a circumferential fillet, the second material being different than the first material and having a lower adhesive property than the first material and becoming attached to the integrated circuit and the substrate.

12. (previously presented) The process as recited in claim 11, further comprising heating the first material to a gel state.

13. (previously presented) The process as recited in claim 12, wherein the substrate is heated to a temperature that is greater than a temperature for heating said first material to said gel state.

14. (previously presented) The process as recited in claim 11, further comprising mounting the integrated circuit to the substrate with a solder bump before the first material is dispensed.

15.-30. (canceled)

31. (previously presented) A process for underfilling an integrated circuit that is mounted to a substrate comprising:

heating the substrate before a first material is dispensed;

dispensing the first material to form an underfill, the first material becoming attached to the integrated circuit and the substrate; and,

dispensing a second material around a periphery of the integrated circuit to form a circumferential fillet, the second material being different than the first material and having a lower adhesion property than the first material and becoming attached to the integrated circuit and the substrate.

32. (previously presented) The process as recited in claim 31, further comprising heating the first material to a gel state.

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33. (previously presented) The process as recited in claim 32, wherein the substrate is heated to a temperature that is greater than a temperature for heating the first material to a gel state.

34. (previously presented) The process as recited in claim 33, wherein the first material is heated to a temperature ranging between 120 degrees Celsius to 145 degrees Celsius.

35. (previously presented) The process as recited in claim 31, wherein the dispensing of the second material is at a temperature ranting between 80 degrees Celsius and 120 degrees Celsius.